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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Landrock

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EXAMINER

RETTA, YEHDEGA

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/747,511	<b>Applicant(s)</b> LANDROCK, PETER	
	<b>Examiner</b> Yehdega Retta	<b>Art Unit</b> 3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 60-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 60-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to amendment filed February 22, 2007. Applicant amended claims 60 and 61 and added claims 62-66.

### ***Claim Rejections - 35 USC § 112***

Claim 66 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim recites a carrier hardware having its own public-secret key pair and wherein the hardware configured to store an END and electronically split the end. However the hardware by itself is not cable of storing or splitting the END. According to applicant's disclosure more than the hardware is required to perform those feature. The hardware is configured with software to perform the storing, splitting etc. Therefore, the specification lacks enablement requirement describing a carrier hardware performing those steps.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 60-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 60 recites a method of electronically negotiating and END sold by a seller to a buyer. According to applicant's specification the END is an "electronic negotiable document" or "electronic quasi negotiable document". The specification also teaches example of END include electronic cash, electronic bank cheques, bill of lading. Applicant discloses the so-called "splitting" of a purchase cheque as a feature of electronic bank cheques. Thus the abbreviation "END" as claimed is vague and should be clearly defined to indicate what it is intended to cover.

Claim 66 is also rejected as stated above.

Claim 62 recites wherein said END and said new ENDs each have an associated sequence number signed by a said secret key". First it is not clear if applicant is claiming that the END and new ENDs which each have associated sequence number is signed by said secret key or the sequence number is signed by the secret key. According to applicant's application it is the END or the new END (split version) that is signed with the secret key of the document carrier. Clarification required.

Claim 63 also have similar problem and clarification is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 60-62 and 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,224,162) further in view of Fischer (US 5,001,752).

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Regarding claim 60, Okamoto teaches a seller (bank) providing an electronic negotiable document (electronic check or cash or bill) and a buyer (200) with a tamper resistant document carrier hardware; the carrier hardware having its own public-secret key pair; transferring the END from the seller (bank) to the buy (see col. 8 lines 38-67), wherein the buyer splits the check electronically into two or more parts and then negotiates those parts separately without the involvement of a trusted third party (TTP) wherein each part is subjected to a digital signature; splitting the electronic check into two or more checks and digitally signing each check; negotiating said new ENDs separately to one or more further buyers without the involvement of a trusted third party (TTP) (see abstract, col. 1 line 25 to col. 2 lines 17, col. 2 lines 42-67, col. 3 line 33 to col. 4 line 39, col. 5 line 35 to col. 6 line 20). Okamoto does not explicitly teach the secret key of the hardware is not accessible by the buyer or seller. Fischer teaches a tamper proof hardware storing a secret key of a public/private key pair wherein users will not be able to determine the contents of the storage device i.e., the private key (see col. 4 lines 35-46). Fischer teaches a secure, microprocessor based hardware, which performs public key cryptographic operations to obtain trusted time stamping with a minimum of intervention by third parties wherein the hardware platform includes at least one digital clock and a stable, secure storage device to record the private half of a public/private key pair and coupled to both the digital clock and the storage device is a data processing device, which performs public key signature operations in a secure and tamper-proof manner. Fischer teaches only the processing device having access to the secure storage device and its associated private key. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the secret key only accessible to the device, as in Fischer, so that the digital signature operation be

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secure and tamper-proof, as taught in Fischer (see abstract, col. 2 lines 36-49, col. 4 lines 35-46, col. 6 lines 9-24).

Regarding claim 62, Okamoto teaches wherein said END and said new ENDs each have an associated sequence number signed by a said secret key (see col. 3 line 24 to col. 4 line 16)

Regarding claim 64, Okamoto teaches the tamper-resistance document carrier hardware bearing an issuing signature (bank signature) and transferring the issuing signature (see 2 lines 43-67, col. 6 lines 1-40). Fischer also teaches the tamper-resistance document carrier hardware bearing an issuing signature and transferring the issuing signature (see col. 6 line 47 to col. 7 line 30). Fischer teaches a document a manufacturer's certification C embodied within it the public key which is associated with the device's private key as well as the manufacturer's public key and includes the digital signature of the device's public key by the trusted manufacturer (see col. 6 line 47-67).

Regarding claim 65, Okamoto does not explicitly teach deleting said issuing signature after said transferring the issuing signature. However official notice is taken that is old and well known to delete the original information if new information is created. It would have been obvious to one of ordinary skill in the art at the time of the invention to delete the original signature to save memory space.

Regarding claim 66 Okamoto teaches a tamper-resistant document carrier hardware, said document carrier hardware having its own public-secret key pair, wherein said tamper-resistant document carrier hardware is configured to: store an END protected by a signature calculated using said secret key; split said END electronically into two or more new ENDs each having a value such that the sum of the values of the new ENDs adds up to a value of said END; and

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negotiate said new ENDS separately to one or more further buyers without the involvement of a trusted third party (TTP) (see abstract, col. 1 line 25 to col. 2 lines 17, col. 2 lines 42-67, col. 3 line 33 to col. 4 line 39, col. 5 line 35 to col. 6 line 20). Okamoto does not explicitly teach wherein said secret key is not accessible to the owner of said tamper-resistant document carrier hardware. Fischer teaches a temper proof hardware storing a secret key of a public/private key pair wherein users will not be able to determine the contents of the storage device i.e., the private key (see col. 4 lines 35-46). Fischer teaches a secure, microprocessor based hardware, which performs public key cryptographic operations to obtain trusted time stamping with a minimum of intervention by third parties wherein the hardware platform includes at least one digital clock and a stable, secure storage device to record the private half of a public/private key pair and coupled to both the digital clock and the storage device is a data processing device, which performs public key signature operations in a secure and tamper-proof manner. Fischer teaches only the processing device having access to the secure storage device and its associated private key. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the secret key only accessible to the device, as in Fischer, so that the digital signature operation be secure and tamper-proof, as taught in Fischer (see abstract, col. 2 lines 36-49, col. 4 lines 35-46, col. 6 lines 9-24).

Claim 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. (US 5,224,162) in view of Fischer (US 5,001,752) further in view of Ishiguro et al. (US 5,396,558).

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Regarding claim 63, Okamoto does not explicitly teach the electronic card includes identifier signed by the secret key. Ishiguro teaches IC cards with public-secret key stored in it and the secret key used for digital signature (col. 4 lines 12-17, col. 12 lines 61 to col. 13 line 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a card identification number in Okamoto's card, as in Ishiguro, so the validity of the card can be verified.

### *Response to Arguments*

Applicant's arguments with respect to claims 60-66 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.




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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yehdega Retta whose telephone number is (571) 272-6723. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
RETTA YEHDEGA  
PRIMARY EXAMINER